AMENDMENTS TO THE CLAIMS

1. (Currently amended) An antagonist to melanin-concentrating hormone receptor comprising as the active ingredient a benzimidazole derivative represented by the following formula [I]

$$Ar \xrightarrow{N} \xrightarrow{R^4} \xrightarrow{B^3} \xrightarrow{R^3} \xrightarrow{N} \xrightarrow{N} \xrightarrow{N} \begin{bmatrix} II \end{bmatrix}$$

wherein:

B¹, B² and B³ are same or different and each stands for hydrogen, halogen, lower alkyl or lower alkyloxy;

R¹ and R² are same or different and each stands for

- 1) hydrogen,
- 2) a 3-10 membered aliphatic ring group of the formula [A]

$$-C Y [A]$$

wherein R^5 either stands for a substituent selected from later specified Group α , or two R^5 's together form oxo group; Y stands for -CH₂-, -NR⁶- or -O-; R⁶ stands for a substituent selected from the group consisting of hydrogen, optionally fluorine-substituted lower alkyl, lower alkylcarbonyl, lower alkylcarbonyl, carbamoyl, mono-lower alkylcarbamoyl and di-lower alkylcarbamoyl; and a is an integer of 0 – 4, or

3) a lower alkyl group which optionally has substituent(s) selected from Group α or a 3 –

10 membered aliphatic ring group represented by the formula [A],

provided R¹ and R² are not hydrogen atoms at the same time;

 R^3 stands for hydrogen or a lower alkyl which optionally has substituents selected from Group α ;

R⁴ stands for hydrogen or a lower alkyl;

W is a divalent group which stands for optionally substituted \underline{a} mono- or bi-cyclic, 3-8 membered aromatic heterocycle which may be substituted by methyl; and

Ar stands for mono- or bi-cyclic, aromatic carbocycle, optionally having one, two or more substitutents selected from Group β ;

wherein Group α eomprises-represents halogen, hydroxyl, amino, mono-lower alkylamino, di-lower alkylamino, optionally fluorine-substituted lower alkyloxy, lower alkyloxycarbonyl, (lower alkyloxycarbonyl)amino, (lower alkyloxycarbonyl)lower alkylamino, lower alkylcarbonyl, lower alkylcarbonyloxy, (lower alkylcarbonyl)amino, (lower alkylcarbonyl) lower alkylamino, carbamoyl, mono-lower alkylcarbamoyl, di-lower alkylcarbamoylamino, (mono-lower alkylcarbamoyl)lower alkylamino, (di-lower alkylcarbamoyl)lower alkylamino, carbamoyloxy, mono-lower alkylcarbamoyloxy, di-lower alkylcarbamoyloxy, lower alkylsulfonyl, lower alkylsulfonylamino, sulfamoyl, mono-lower alkylsulfamoyl, di-lower alkylsulfamoyl, sulfamoylamino, (mono-lower alkylsulfamoyl)amino, (di-lower alkylsulfamoyl)amino, (mono-lower alkylsulfamoyl)lower alkylsulfamoyl)

wherein Group β eomprises represents halogen, hydroxyl, amino, cyano, mono-lower alkylamino, di-lower alkylamino, optionally fluorine-substituted lower alkyl, optionally fluorine-substituted lower alkyloxy, lower alkyloxycarbonyl, (lower alkyloxycarbonyl)amino, (lower alkyloxycarbonyl)lower alkylamino, carboxyl, lower alkylcarbonyl, lower alkylcarbonyloxy, (lower alkylcarbonyl) amino, (lower alkylcarbonyl)lower alkylamino, di-lower alkylcarbamoyl, di-lower alkylcarbamoylamino, (di-lower alkylcarbamoyl)lower alkylamino, di-lower alkylsulfamoyl, sulfamoylamino, (di-lower alkylsulfamoyl)amino, (di-lower alkylsulfamoyl)lower alkylsulfamoyl)lower alkylsulfamoyl)lower alkylsulfamoyl)

Minoru MORIYA et al. Serial No. 10/522,718 Attorney Docket No. 2005_0136A January 16, 2009

and 5-6 membered aliphatic carbocycle or heterocycle which is optionally substituted with a group selected from group γ ; and

wherein Group γ eomprises represents lower alkylcarbonyl, lower alkylsulfonyl and lower alkyloxycarbonyl;

or a pharmaceutically acceptable salt thereof.

- 2. (Previously presented) The antagonist to melanin-concentrating hormone receptor as described in Claim 1, wherein R^1 is methyl.
- 3. (**Previously presented**) The antagonist to melanin-concentrating hormone receptor as described in Claim 2, wherein R² is selected from the group consisting of isopropyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methylpyrrolidin-3-yl, N-acetylpyrrolidin-3-yl, N-methylpiperidin- 4-yl, tetrahydrofuran-2-yl, 1-methanesulfonylpyrrolidin-3-yl and 1-(isopropylcarbonyl)pyrrolidin-3-yl.
- 4. (Previously presented) The antagonist to melanin-concentrating hormone receptor as described in Claim 1, wherein all of B¹, B² and B³ are hydrogen atoms.
- 5. (Previously presented) The antagonist to melanin-concentrating hormone receptor as described in Claim 1, wherein R³ is hydrogen or methyl.
- 6. (Currently amended) The antagonist to melanin-concentrating hormone receptor as described in Claim 1, wherein R⁴ is hydrogen or methyl.

7. (Cancelled)

8. (Currently amended) The antagonist to melanin-concentrating hormone receptor as described in Claim 1, wherein W is an optionally substituted mono- or bi-cyclic, 3-8 membered aromatic nitrogen-containing heterocycle which may be substituted by methyl.

9. (Previously presented) The antagonist to melanin-concentrating hormone receptor as described in Claim 8, wherein W is selected from the group consisting of the following substituents:

10. (Previously presented) The antagonist to melanin-concentrating hormone receptor as described in Claim 8, wherein W is selected from the group consisting of the following substituents:

11. **(Previously presented)** The antagonist to melanin-concentrating hormone receptor as described in Claim 1, wherein Ar is selected from the group consisting of phenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, 2-trifluoromethylphenyl, 3-trifluoromethylphenyl, 4-trifluoromethylphenyl, 4-methoxyphenyl, 4-methoxyphenyl, 3-fluoro-4-methoxyphenyl, 3,4-difluorophenyl, 2,4-difluorophenyl, 4-chlorophenyl, 4-(piperidin-1-yl)phenyl and 4-(morpholin-1-yl)phenyl.

12-13. (Cancelled)

14. (Currently amended) A compound represented by a formula [I-1]

$$Ar \xrightarrow{W^1 \longrightarrow N} \stackrel{R^4}{\longrightarrow} \stackrel{B^3}{\longrightarrow} \stackrel{R^3}{\longrightarrow} \stackrel{N}{\longrightarrow} \stackrel{R^1}{\longrightarrow} \stackrel{[I-1]}{\longrightarrow} \stackrel{R^2}{\longrightarrow} \stackrel{[I-1]}{\longrightarrow} \stackrel{R^2}{\longrightarrow} \stackrel{R^3}{\longrightarrow} \stackrel{R^3}{\longrightarrow$$

wherein:

B¹, B² and B³ are same or different and each stands for hydrogen, halogen, lower alkyl or lower alkyloxy;

R¹ and R² are same or different and each stands for

- 1) hydrogen,
- 2) a 3 10 membered aliphatic ring group of the formula [A]

$$-\underbrace{C}_{Y}^{(R^{5})a}$$

wherein R^5 either stands for a substituent selected from later specified Group α , or two R^5 's together form oxo group; Y stands for -CH₂-, -NR⁶- or -O-; R^6 stands for a substituent selected from the group consisting of hydrogen, optionally fluorine-substituted lower alkyl, lower alkylcarbonyl, lower alkylcarbonyl, carbamoyl, mono-lower alkylcarbamoyl and di-lower alkylcarbamoyl; and a is an integer of 0-4, or

3) a lower alkyl group which optionally has substituent(s) selected from Group α or a 3 –

10 membered aliphatic ring group represented by the formula [A],

provided R¹ and R² are not hydrogen atoms at the same time;

 R^3 stands for hydrogen or a lower alkyl which optionally has substituents selected from Group α ;

R⁴ stands for hydrogen or a lower alkyl;

W¹ is a divalent group which stands for optionally substituted a mono- or bi-cyclic, 3 – 8 membered aromatic or aromatic heterocycle which may be substituted by methyl; and

Ar stands for, mono- or bi-cyclic, aromatic carbocycle, optionally having one, two or more substitutents selected from Group β ;

wherein Group α eomprises-represents halogen, hydroxyl, amino, mono-lower alkylamino, di-lower alkylamino, optionally fluorine-substituted lower alkyloxy, lower alkyloxycarbonyl, (lower alkyloxycarbonyl)amino, (lower alkyloxycarbonyl)lower alkylamino, lower alkylcarbonyl, lower alkylcarbonyloxy, (lower alkylcarbonyl)amino, (lower alkylcarbonyl) lower alkylamino, carbamoyl, mono-lower alkylcarbamoyl, di-lower alkylcarbamoylamino, (mono-lower alkylcarbamoyl)lower alkylcarbamoyl)lower alkylamino, carbamoyloxy, mono-lower alkylcarbamoyloxy, di-lower alkylcarbamoyloxy, lower alkylsulfonyl, lower alkylsulfonylamino, sulfamoyl, mono-lower alkylsulfamoyl, di-lower alkylsulfamoyl, sulfamoylamino, (mono-lower alkylsulfamoyl)amino, (di-lower alkylsulfamoyl)amino, (mono-lower alkylsulfamoyl)lower alkylsulfamoyl)

wherein Group β eomprises-represents halogen, hydroxyl, amino, cyano, mono-lower alkylamino, di-lower alkylamino, optionally fluorine-substituted lower alkyl, optionally fluorine-substituted lower alkyloxy, lower alkyloxycarbonyl, (lower alkyloxycarbonyl)amino, (lower alkyloxycarbonyl)lower alkylamino, carboxyl, lower alkylcarbonyl, lower alkylcarbonyloxy, (lower alkylcarbonyl) amino, (lower alkylcarbonyl)lower alkylamino, di-lower alkylcarbamoyl, di-lower alkylcarbamoylamino, (di-lower alkylcarbamoyl)lower alkylsulfamoyl, sulfamoylamino, (di-lower alkylsulfamoyl)amino, (di-lower alkylsulfamoyl)lower alkylsulfamoyl)

Minoru MORIYA et al. Serial No. 10/522,718 Attorney Docket No. 2005_0136A January 16, 2009

and 5-6 membered aliphatic carbocycle or heterocycle which is optionally substituted with a group selected from group γ ; and

wherein Group γ emprises represents lower alkylcarbonyl, lower alkylsulfonyl and lower alkyloxycarbonyl;

or a pharmaceutically acceptable salt thereof.

- 15. (Previously presented) The compound of Claim 14, wherein R¹ is methyl.
- 16. (**Previously presented**) The compound of Claim 15, wherein R² is selected from the group consisting of isopropyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methylpyrrolidin-3-yl, N-acetylpyrrolidin-3-yl, N-methylpiperidin- 4-yl, tetrahydrofuran-2-yl, 1-methanesulfonyl-pyrrolidin-3-yl and 1-(isopropylcarbonyl)pyrrolidin-3-yl.
- 17. (Previously presented) The compound of Claim 14, wherein all of B¹, B², and B³ are hydrogen atoms.
- 18. (Previously presented) The compound of Claim 14, wherein R³ is hydrogen or methyl.
- 19. (Previously presented) The compound of Claim 14, wherein R⁴ is hydrogen or methyl.
- 20. (Cancelled)
- 21. (Currently amended) The compound of Claim 14, wherein W¹ is an optionally substituted mono- or bi-cyclic, 3 8 membered aromatic nitrogen-containing heterocycle which may be substituted by methyl.
- 22. (Previously presented) The compound of Claim 21, wherein W¹ is selected from the group consisting of the following substitutents:

23. (Previously presented) The compound of Claim 21, wherein W¹ is selected from the group consisting of the following substituents:

- 24. **(Previously presented)** The compound of Claim 14, wherein Ar is selected from the group consisting of phenyl, 2-fluorophenyl, 3-fluorophenyl, 4-fluorophenyl, 2-trifluoromethylphenyl, 3-trifluoromethylphenyl, 4-methoxyphenyl, 4-methoxyphenyl, 4-methoxyphenyl, 3-fluoro-4-methoxyphenyl, 3,4-difluorophenyl, 2,4-difluorophenyl, 4-chlorophenyl, 4-(piperidin-1-yl)phenyl and 4-(morpholin-1-yl)phenyl.
- 25. (Previously presented) The compound of Claim 14, wherein said compound is

 •5-(4-fluorophenyl)-N-{2-[isopropyl(methyl)amino]-1H- benzimidazol-6-yl}-2-

pyridinecarboxamide,

•5-(4-fluorophenyl)- N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-2-

pyrazinecarboxamide,

- •N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-N- methyl-5-[4-(trifluoromethyl)phenyl]-1,2,4-oxadiazole-3-carboxamide,
- •3-(4-fluorophenyl)-N-{2-[isopropyl(methyl)amino]-1H- benzimidazol-6-yl}-1,2,4-oxadiazole-5-carboxamide,
- •6-(4-fluorophenyl)-N-{2-[isopropyl(methyl)amino]-1H- benzimidazol-6-yl}-3-pyridinecarboxamide,
- •N-{2-[1-acetyl-3-pyrrolidinyl(methyl)amino]-1-benzimidazol-6-yl}-5-(4-fluorophenyl)-2-pyridinecarboxamide,
- •N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-5- phenyl-2-pyrazinecarboxamide,
- •N-{2-[1-acetyl-3-pyrrolidinyl(methyl)amino]-1H-benzimidazol-6-yl}-5-(4-fluorophenyl)-2-pyrazinecarboxamide,
- •5-(4-fluorophenyl)-N-{2-[isopropyl(methyl)amino]-1H- benzimidazol-6-yl}-2-pyrimidinecarboxamide,
- •6-(4-fluorophenyl)-N-{2-[isopropyl(methyl)amino]-1H- benzimidazol-6-yl}-3-pyridazinecarboxamide,
- •2-(4-fluorophenyl)-N-{2-[isopropyl(methyl)amino]-1H- benzimidazol-6-yl}-5-pyrimidinecarboxamide,
- •N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-3-[4- (trifluoromethyl)phenyl]-1,2,4-oxadiazole-5-carboxamide,
- •N-{2-[isopropyl[(methyl)amino]-1H-benzimidazol-6-yl}-1-[4-(trifluoromethyl)phenyl]-1,2,4-triazole-3-carboxamide,
- •N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-5-[4- (trifluoromethyl)phenyl]-1,3,4-oxadiazole-2-carboxamide,
- •N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-5- methyl-1-[4-(trifluoromethyl)phenyl]-1H-pyrazole-4-carboxamide,
- •N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-2-[4- (trifluoromethyl)phenyl]-2H-tetrazole-2-carboxamide,

Minoru MORIYA et al. Serial No. 10/522,718 Attorney Docket No. 2005_0136A January 16, 2009

- •6-(3-fluorophenyl)-N-{2-[isopropyl(methyl)amino]-1H- benzimidazol-6-yl}-3-pyridinecarboxamide,
- •N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-5- phenyl-5-pyrimidinecarboxamide,
- •5-(4-fluorophenyl)-N-{2-[isopropyl(methyl)amino]-1-methyl- 1H-benzimidazol-6-yl}-2-pyrimidinecarboxamide, or
- •N-{2-[isopropyl(methyl)amino]-1H-benzimidazol-6-yl}-5- phenyl-3-pyridinecarboxamide.
- 26. (Previously presented) A medical composition comprising the compound as described in Claim 14 and a pharmaceutically acceptable carrier.

27. (Cancelled)